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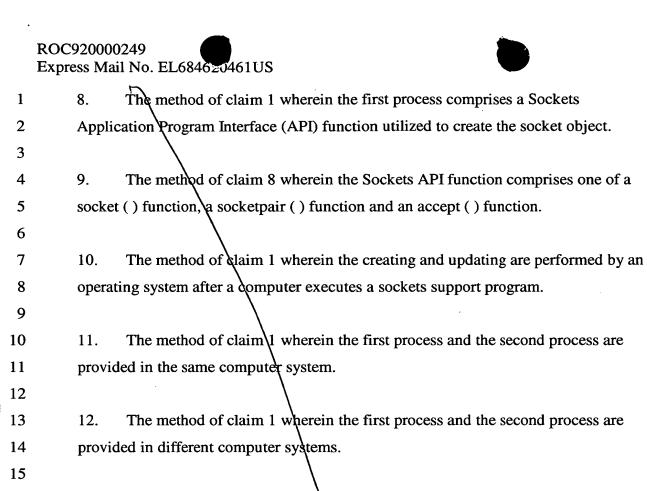
29 30

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|  | $\mathbf{W}\mathbf{H}$ | AΤ | IS | $\mathbf{CL}$ | $\mathbf{AIN}$ | ИED | IS: |
|--|------------------------|----|----|---------------|----------------|-----|-----|
|--|------------------------|----|----|---------------|----------------|-----|-----|

- 1. Method for tracking at least one process using a socket object, where the at least one prodess is utilized to execute an application program, the method comprising: creating a process list for the socket object, where the process list contains a process identified for a first process using the socket object; and updating, it a second process is using the socket object, the process list to include the process identifier for the second process.
- 2. The method of claim 1 wherein the process list is displayed on a user interface in response to a user interface command entered by a user.
- 3. The method of claim \ wherein the step of updating comprises: adding the process identifier of the second process to the process list if the second process is to use the socket object.
- 4. The method of claim 3 wherein the second process is to use the socket object if a socket descriptor created for the socket object is passed from the first process to the second process.
- 5. The method of claim 1 wherein the step of updating comprises: removing the process identifier of at least one of the first process and second process from the process list if the at least one of the first process and second process no longer uses the socket object.
- 6. The method of claim 5 wherein the at least one of the first process and second process no longer uses the socket object if a socket/descriptor created for the socket object is removed from the at least one of the first process and second process.
- 7. The method of claim 1 wherein the step of updating comprises: removing the process identifier of at least one of the first process and the second process from the process list if the at least one of the first process and second process expires.



- 13. The method of claim 1 wherein the process identifier comprises at least one of a process name, a user name associated with the process name and a process number.
- 14. A method for administering network information, the method comprising: displaying a user interface containing a list of socket objects used for a computer system; and

providing a process list for a socket object selected by a user from the list of socket objects, where the process list contains a process identifier for at least one process using the selected socket object..

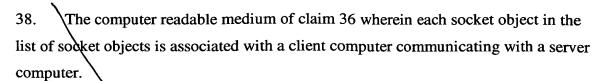
- 15. The method of claim 14 wherein each of the at least one process using the selected socket object comprises an active process using the socket object.
- 16. The method of claim 14 wherein each socket object in the list of socket objects is associated with a client computer communicating with a server computer.
- 17. The method of claim 14 wherein the process identifier comprises at least one of a process name, a user name associated with the process name and a process number.

| 2  | 18.    | An apparatus for tracking at least one process of an application program using   |
|----|--------|--|
| 3  | a sock | ket object, the apparatus comprising:  |
| 4  |        | a memory for storing an operating system and a sockets support program; and      |
| 5  |        | a processor, coupled to the memory, for performing a method upon executing       |
| 6  | the so | ckets support program retrieved from the memory, the method comprising:          |
| 7  |        | creating the process list for a socket object, where the process list            |
| 8  |        | contains a process identifier for a first process using the socket object, and   |
| 9  |        | updating, if a second process is using the socket object, the process list       |
| 10 |        | to include the process identifier of the second process.                         |
| 11 |        |  |
| 12 | 19.    | The apparatus of claim \ 8 further comprising:                                   |
| 13 |        | a network interface for coupling the socket object with a remote device.         |
| 14 |        |  |
| 15 | 20.    | The apparatus of claim 18 further comprising:                                    |
| 16 |        | a display device, coupled to the processor, for displaying the process list when |
| 17 | the pr | ocessor retrieves and executes a user interface program from the memory.         |
| 18 |        |  |
| 19 | 21.    | The apparatus of claim 18 wherein the operating system comprises one of          |
| 20 | UNIX   | X, IBM AIX, IBM OS/400 and Microsoft Windows.                                    |
| 21 |        |  |
| 22 | 22.    | The apparatus of claim 18 wherein the network interface couples the first        |
| 23 | proce  | ss to the second process.  |
| 24 |        |  |
| 25 | 23.    | A computer readable medium storing a software program that, when executed        |
| 26 | by a p | processor of a computer, causes the computer to perform a method comprising:     |
| 27 |        | creating a process list for a socket object, where the process list contains a   |
| 28 | proce  | ss identifier for a first process using the socket object; and                   |
| 29 |        | updating, if the second process is using the socket bject, the process list to   |
| 30 | includ | de the process identifier of the second process.                                 |
| 31 |        |  |

object.

| 1              |   |  | $\wedge$   |  |  |  |  |  |  |
|----------------|---|--|--|--|--|--|--|--|--|
| 2              |   | 31.  | The computer readable medium of claim 30 wherein the Sockets API function        |  |  |  |  |  |  |
| 3              |   | comprises one of a socket () function, a socketpair () function and an accept () |  |  |  |  |  |  |  |
| 4              |   | function.  |  |  |  |  |  |  |  |
| 5              |   |  |  |  |  |  |  |  |  |
| 6              |   | 32.  | The computer readable medium of claim 23 wherein the creating and updating       |  |  |  |  |  |  |
| 7              |   | are pe   | rformed by an operating system after a computer executes a sockets support       |  |  |  |  |  |  |
| 8              |   | progra   | ım.  |  |  |  |  |  |  |
| 9              |   |  |  |  |  |  |  |  |  |
| 10             |   | 33.  | The computer readable medium of claim 23 wherein the first process and the       |  |  |  |  |  |  |
| 11             |   | second   | d process are provided in the same computer system.                              |  |  |  |  |  |  |
| 12             |   |  |  |  |  |  |  |  |  |
| 13             |   | 34.  | The computer readable medium of claim 23 wherein the first process and the       |  |  |  |  |  |  |
| 14<br>15<br>15 |   | secono   | d process are provided in different computer systems.                            |  |  |  |  |  |  |
| <u></u>        |   |  |  |  |  |  |  |  |  |
| 16             |   | 35.  | The computer readable medium of claim 23 wherein the process identifier          |  |  |  |  |  |  |
| 17 17          |   | compi  | rises at least one of a process name a user name associated with the process     |  |  |  |  |  |  |
| <b>18</b>      |   | name   | and a process number.  |  |  |  |  |  |  |
| <u>□</u> 19    |   |  |  |  |  |  |  |  |  |
| 20             |   | 36.  | A computer readable medium storing a software program that, when executed        |  |  |  |  |  |  |
| □21            |   | by a p   | rocessor of a computer, causes the computer to perform a method comprising::     |  |  |  |  |  |  |
| 22             |   |  | displaying a user interface containing a list of socket objects used for a       |  |  |  |  |  |  |
| 23             |   | comp   | uter system; and   |  |  |  |  |  |  |
| 24             |   |  | providing a process list for a socket object selected by a user from the list of |  |  |  |  |  |  |
| 25             |   | socke  | t objects, where the process list contains a process identifier for at least one |  |  |  |  |  |  |
| 26             | • | proces   | ss using the selected socket object.   |  |  |  |  |  |  |
| 27             |   |  |  |  |  |  |  |  |  |
| 28             |   | 37.  | The computer readable medium of claim 36 wherein each of the at least one        |  |  |  |  |  |  |
| 29             |   | proces   | ss using the selected socket object comprises an active process using the socket |  |  |  |  |  |  |
| 30             |   | object   | i. \   |  |  |  |  |  |  |

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39. The computer readable medium of claim 36 wherein the process identifier comprises at least one of a process name, a user name associated with the process name and a process number